

# Wheel of Life: Food Chain in the Temperate Forest

## Contents of Wheel of Life: Food Chain in the Temperate Forest Puzzle

- 8 puzzle pieces to fit into the Wheel of Life Puzzle Base (*sold separately*)
- 8 cards telling the story of the Food Chain in the Temperate Forest



### You will need

Wheel of Life base, Food Chain in the Temperate Forest Puzzle with sequence cards, copies of blank wheel from master, colored pencils.

### Purpose

To understand and appreciate the perfection and sustainability of nature's cycles. To become familiar with how a cycle works (that the end is the beginning again). To develop a sense of how those cycles relate to the eight directions taught by indigenous cultures.

*In preparation, children should have the Orientation to the Four Directions lesson. This lesson can be found in The Waseca Biomes Curriculum, with the lesson for Cardinal Points, or on our website in the A - Z PDF library.*

### Lesson

To begin, orient the puzzle base to north. Place the N tab in the puzzle. Ask the children where South would be and have them place the S tab. Ask where East and West would be and place those tabs. Note the place between East and South. Call it Southeast and have the children place the tab SE. Repeat this procedure for SW, NW, and NE. Place the sun in the middle of the puzzle. Talk about how all the energy comes from the Sun and how that energy moves in cycles or circles.

# E

*Guide: I would like to show you a very special wheel that fits in this puzzle. Every time we do this wheel, we will always start in the East.*

Have the children turn to sit on the east side of the puzzle with you. East is always the beginning. Place the puzzle pieces for the Food Chain Wheel in a row above North with the directions facing up. Find the piece with the E and turn it over. Notice that it shows a newly sprouted seedling emerging into the sunshine.

*Guide: From the acorn, a tiny oak seedling pushes its way towards the Sun. Leaves catch the energy of the Sun and the plant grows.*

*This story begins with an oak seedling pushing up out of the ground to find the Sun and the air. See its new green leaves and its roots in the ground. One day it will become a big oak tree. Once it grows more leaves, animals will come to live in it and eat from it. Can you find an animal eating the oak leaves?*

# SE

Look for the puzzle piece with SE on the back and place it in the puzzle.

*Guide: The oak becomes a tree with branches and many leaves. An oak caterpillar munches on a leaf and gets his energy from the plant that got its energy from the Sun.*

*The southeast is about growing very quickly. Caterpillars eat constantly and grow quickly. That caterpillar is taking its energy from the oak tree. Look back to the pieces and see who might eat the caterpillar.*

# S

Find the puzzle piece with a S on the back and place it in the South position.

*Guide: A bluebird spies the caterpillar and grabs him in its beak. The bluebird will get some energy from the caterpillar that got its energy from the plant. The plant made food from the energy of the Sun.*

*The south is about the work of the day. That bluebird makes his living by finding food. He takes the energy from the caterpillar. Look to the pieces to see what the bird is going to do with that energy.*

## SW

Find the piece with SW on the back, turn it over and place it in the Southwest position.

*Guide: The bluebird uses its energy to lay eggs. It hopes to raise a nest of bluebird babies in the branches of the oak tree.*

*The southwest is about preparation and rest. The bluebird lays several eggs, but not all of the eggs will hatch. Look for the next piece and let's move to the West.*

## W

Place the W piece in the puzzle.

*Guide: A brown tree snake spots the eggs in the nest. It takes one in its mouth and slithers away. The snake gets its energy from an egg that came from the bluebird who ate the caterpillar who ate the leaf that got its energy from the Sun.*

*The west is about harvest. Snakes can go for days without eating. This snake was very lucky to find an egg with all its energy. Let's see what happens next.*

## NW

Find the puzzle piece with NW on the back for the Northwest. Turn it over and place it in the puzzle.

*Guide: A red-tailed hawk spots the snake as it slithers along the ground toward the oak tree. It grabs the snake in its talons and takes the energy from the snake that came from the egg that came from the bluebird that came from the caterpillar that came from the leaf that came from the Sun.*

*The hawk is coming down to get the snake and take his energy for his own. Everything that lives must one day die. The hawk is a master hunter.*

# N

Find the puzzle piece with N on the back for the North. Turn it over and place it in the puzzle.

*Guide: The hawk becomes old and his feathers start to shed. Its spirit leaves its body and the energy from its body goes back into the soil.*

# NE

Find the puzzle piece with NE on the back for the Northeast. Turn it over and place it in the puzzle.

*Guide: Leaves from the oak tree and the body of the hawk begin to decompose. The energy goes back into the soil where an acorn rests. The acorn waits until the ground is warm before it begins to sprout.*

*The last piece shows us that the energy from the hawk's body has gone back to the soil. That makes the soil rich for plants to grow. Look, there is an acorn in the ground from the old oak tree! The cycle will start all over again..*

After the initial lesson, invite children to practice the puzzle on their own. If they are reading independently, they may read the text cards and place them below the corresponding puzzle piece. The text cards have a control of error on the back for the direction in which they should be placed.

Once the child has practiced the puzzle repeatedly, ask them what is happening in each direction. Invite them to tell the story of the food chain. They may wish to tell it on the circle and have other children act out the parts as they narrate. Assign parts for each direction. Perform the story in a circle beginning with East.

## **Extension**

- Have the children use copies of the blank wheel to draw their own illustrations of the story or have them think of a new food chain and illustrate that.

## **Some provocative questions:**

- Can you think of some other animals that might live in the oak tree?
- Would they be eaten by or would they eat the caterpillar? ... the bird?... the snake?
- What animal is at the top of this food chain?
- What living thing is at the bottom of the food chain? Why are plants always at the bottom of the food chain?
- Where did the energy from the plant come from?
- Where did the Sun's energy come from?
- Can you think of other plants that come back after the winter to make more fruits?